

His ability as a botanist may be judged from the fact that when the late Professor Hugo de Vries, of Amsterdam, visited California a number of years ago, his first wish was to visit Riverside and meet Mr. Fred Reed, who was so well acquainted with the species of *Oenothera* which grew on the deserts of southern California.—H. S. REED.

## NOTES ON ORTHOCARPUS

DAVID D. KECK

ORTHOCARPUS FAUCIBARBATUS Gray, Pacif. Rail. Rep. 4: 121, 1856.

When I published a revision of *Orthocarpus* in 1927 (Proc. Calif. Acad. Sci. 4th ser. 16: 517-571), I had had almost no field experience with *O. faucibarbatu*s. I had found from herbarium material that the corolla was sometimes pale yellow, sometimes white, but suspected that the variation probably occurred at random. Field studies since have shown that corolla color is a clear mark of geographic subspecies. The yellow-flowered form appears to be confined to the valleys away from the immediate coast, and is found northward from San Francisco Bay to Mendocino County. The color of the flower cannot be determined in the type specimen, but it came from Corte Madera, Marin County, where only the yellow-flowered form is now found. That leaves the white-flowered form, which is confined to the coastal strip from southern Oregon to Monterey County, California, in need of a name.

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| Lower lip of corolla yellow; valleys of the North Coast Ranges, California .....   | 1a. <i>O. faucibarbatu</i> s<br>subsp. <i>typicus</i>  |
| Lower lip of corolla pure white, together with the tube often turning pinkish in age; immediate coast, southern Coos County, Oregon, to northern Monterey County, California ..... | 1b. <i>O. faucibarbatu</i> s<br>subsp. <i>albidu</i> s |

1a. ORTHOCARPUS FAUCIBARBATUS Gray subsp. **typicus** nom. nov.

*O. faucibarbatu*s Gray, loc. cit.

*O. erianthus* var. *laevis* Gray, Syn. Fl. 2: 453. 1886.

1b. ORTHOCARPUS FAUCIBARBATUS subsp. **albidu**s subsp. nov.  
A subsp. *typico* differt corollae labio inferiori albo dein roseo.

At the base of each free lobe of the lip of the corolla there is a greenish orange or greenish yellow spot.

Specimens from the following herbaria have been examined: Botanischer Garten und Botanisches Museum, Berlin-Dahlem, B; University of California, Berkeley, C; California Academy of Sciences, San Francisco, CAS; Carnegie Institution of Washington, Stanford University, CI; Universitetets Botaniske Museum,

Copenhagen, Cop; Field Museum of Natural History, Chicago, F; Conservatoire et Jardin Botaniques de la Ville, Genève, G; Gray Herbarium, Harvard University, Cambridge, GH; Royal Botanic Gardens, Kew, K; Missouri Botanical Garden, St. Louis, M; University of Notre Dame, Notre Dame, ND; New York Botanical Garden, New York, NY; Academy of Natural Sciences, Philadelphia, Ph; Pomona College, Claremont, Po; Rocky Mountain Herbarium, University of Wyoming, Laramie, RM; Dudley Herbarium, Stanford University, SU; United States National Herbarium, Washington, US. In the following citations, herbaria in which previously cited (Keck, *op. cit.*) collections are located are not repeated.

OREGON. Coos County: between Bandon and Langlois, *Abrams & Benson 10635*. CALIFORNIA. Del Norte County: Gasquet, *Tracy 12276* (CI, the farthest inland station yet recorded); French Hill near Gasquet, *Gillespie 9692* (SU); Douglas Park, Smith River, *Thompson 12905* (CI); Crescent City, July 1, 1899, *Dudley* (SU); 4 miles south of Crescent City, *Keck & Clausen 3401* (C, CI, Po, SU). Humboldt County: Snow Camp, *Kildale 10564* (SU); Patrieks Point, *Kildale 3590* (SU); Trinidad, *Tracy 3237*; Little River; Mad River, 1878, *Rattan* (SU); Arcata; Humboldt Bay, *Chandler 1101*; Gunther's Island, Humboldt Bay, *Kildale 9528* (SU); 4 miles south of Eureka, *Keck & Clausen 3380* (CI, SU). Mendocino County: Noyo, *Bolander 6537*; Albion, *McMurphy 305* (SU); Stewarts Point, *Abrams 7616* (SU). Sonoma County: Fort Ross, *Heller 6607*; 3 miles south of mouth of Russian River, *Keck & Clausen 3375* (SU, type; isotypes, C, CAS, CI, F, GH, M, NY, Ph, Po, RM, US). Marin County: near Lighthouse, Point Reyes, *Abrams 11615* (SU). San Francisco, *Jones 3267*, *Bolander 6301*. San Mateo County: Pebble Beach, Pescadero; Ano Nuevo Point, *Keck 5009* (B, CI, GH, ND); Arroyo de los Frijoles. Santa Cruz County: Swanton, May 12, 1912, *Rich* (SU); west of Watsonville, *Baker 1955*. Monterey County: between Salinas and San Juan Grade, *Abrams 6402* (SU); Castroville, *Elmer 4474*, *Heller 8491*.

This is the subspecies that was introduced toward the end of the last century on Vancouver Island near Victoria. In the spring of 1939 it was recollected at Ten Mile Point, Victoria, by J. W. Eastham (CI).

ORTHOCARPUS FLORIBUNDUS Benth. × O. PUSILLUS Benth. Two plants of this interesting and hitherto unreported hybrid were found growing with both parental species near the station of the Radio Corporation of America on the road to Point Reyes Lighthouse, Marin County, California, April 1 to 10, 1936, by Milo S. Baker (CI).

Carnegie Institution of Washington,  
Division of Plant Biology,  
Stanford University, California,  
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